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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,781	10/29/2001	Andrew R. Ferlitsch	SLA1031	5371

52894 7590 08/07/2007

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ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
08/07/2007	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/002,781
Filing Date: October 29, 2001
Appellant(s): FERLITSCH, ANDREW R.

Scott C. Krieger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed May 23, 2007 appealing from the Office action mailed November 17, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,229,622	Takeda	6-2001
6,474,881	Wanda	11-2002
5,822,500	Utsunomiya et al.	10-1998

6,748,471	Keeney et al.	6-2004
5,697,040	Rabjohns et al.	12-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 5, 9-11, 13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in Utsunomiya et al. (US 5,822,500).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in view of Keeney et al. (US 6,748,471).

Claim 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in view of Rabjohns et al. (US 5,697,040).

For completeness, the rejection, as set forth in the Final Office Action, mailed November 17, 2006, is duplicated below.

Claims 1-3, 5, 9-11, 13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881).

Regarding claim 1, Takeda teaches a method for interleaving print jobs, said method comprising:

Receiving a plurality of original print jobs at a non-printer computing device (Takeda, col 4, ln 66-67, and col 5, ln 1-8, wherein the spool area in the hard drive receives a plurality of print jobs. Also see fig 2, wherein spool area receives print jobs. Jobs are received by a non-printer computing device. See col 10, ln 63-67, and col 11, ln 1-3, wherein interleaving functions according to Takeda may be performed in part or entirely by a computer, i.e. a non-printer computing device);

Partitioning at least one of said original print jobs into a plurality of sub-jobs with said non-printer computing device (Takeda, col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job. Also see col 4, ln 42-45, for example, wherein jobs larger than a predetermined size are partitioned into a plurality of sub-jobs);

Tagging said plurality of sub-jobs with an output mode code wherein said output mode code is the same for sub-jobs originating from the same original print job (Takeda, col 5, ln 59-64, wherein each sub-job Px stored in each spool area are sent to switching stackers, i.e. output trays. Inherently, each sub-job must be tagged with an output mode code in order for sub-jobs to be collected on a per-user basis. Sub-jobs that are collated on a per-user basis are inherently tagged with the same output code originating from the same original user job); and

Interleaving said sub-jobs and any remaining original print jobs with said non-printer computing device (Takeda, col 5, ln 11-52, printing operation prints all pages "Px" of sub-job "X," and then moves to next sub-job. When all sub-jobs have been processed, operation loops back to first print job's sub-jobs. See col 5, ln 53-58, for

printing and spooling. Also see fig 3B, wherein processing of jobs is continued until print data no longer remains, S7 and S13).

Takeda does not disclose expressly a method comprising generating a combined print job comprising a plurality of user jobs. Wanda, however, teaches a method of printing comprising generating a combined print job comprising a plurality of user jobs (Wanda, col 8, ln 61- col 9, ln 10, wherein individual jobs are grouped into a group job at a non-printer computing device. See fig 16 for example of a group job comprising a plurality of individual jobs, col 14, ln 17-21). Modifying the method of Tanaka with the teachings of Wanda causes a combined job to be generated comprising the interleaved sub-job and original jobs.

Takeda and Wanda are combinable because they are from a similar field of endeavor of network printing multiple jobs concurrently. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Wanda comprising generating a combined print job with the method of Tanaka for interleaving print jobs comprising receiving a plurality of print jobs, partitioning the print jobs, tagging the sub-jobs, and interleaving the print jobs. The motivation for doing so would have been to generate a group of plurality of jobs so as to not allow other print jobs to interrupt in the group job (Wanda, col 1, ln 44-50), while also not inhibiting printing if a job in a group is not ready to print (Wanda, col 1, ln 61-col 2, ln 9). Therefore, it would have been obvious to combine Wanda with Takeda to obtain the invention as specified in claim 1.

Regarding claim 2, which depends from claim 1, the combination of Takeda and Wanda teaches a method for interleaving print jobs wherein said non-printer computing device is a computing device (Takeda, col 10, ln 63-67, and col 11, ln 1-3, wherein interleaving functions may be performed in part of entirely by a client computing device or in a server as taught by Wanda).

Regarding claim 3, which depends from claim 1, the combination of Takeda and Wanda teaches a method for interleaving print jobs wherein said non-printer computing device is a network print server (Wanda, col 5, ln 1-21, and fig 1, server #101, wherein server manages grouping of print jobs. A server as taught by Wanda reads on a computing device as taught by Takeda).

Regarding claim 5, which depends from claim 1, the combination of Takeda and Wanda teaches a method for interleaving print jobs wherein said partitioning is performed by a software print system component in an operating system print server (According to Takeda in col 10, ln 42-45, the method of interleaving may be applied to a system constituted by a plurality of devices (e.g., a computer, interface, reader, printer, etc. A server as taught by Wanda reads on a computer. In Wanda, col 6, ln 51-55, the grouping and print control is performed by a print control program in the server. The server is a operating system print server, col 5, ln 30-45).

Regarding claim 9, which depends from claim 5, the combination of Takeda and Wanda teaches a method for interleaving print jobs wherein said print system component is a network print driver (Wanda, fig 3, and col 6, ln 30-38, wherein network printer control program #303 reads on a print driver).

Regarding claim 10, which depends from claim 1, the combination of Takeda and Wanda further teaches a method wherein said partitioning results in sub-jobs of approximately equal size (Takeda, col 4, ln 40-44, number of pages, Px, of sub-jobs can be controlled independently for each user or set to be equal for all sub-jobs, col 4, ln 54-55).

Regarding claim 11, which depends from claim 1, the combination of Takeda and Wanda further teaches a method wherein said partitioning results in sub-jobs of approximately equal printing time (Takeda, col 4, ln.44-45, size of sub-jobs may alternatively be set to length of time rather than amount of data).

Regarding claim 13, the combination of Takeda and Wanda (as combined in claim 1) teaches a method for interleaving print jobs, said method comprising:

Receiving a plurality of original print jobs at a non-printer, print system component before said original print jobs arrive at a printer (Takeda, col 4, ln 66-67, and col 5, ln 1-8, wherein the spool area in the hard drive receives a plurality of print jobs. Also see fig 2, wherein spool area receives print jobs. Jobs are received by a non-printer computing device. See col 10, ln 63-67, and col 11, ln 1-3, wherein interleaving functions according to Takeda may be performed in part or entirely by a computer, i.e. a non-printer computing device);

Partitioning at least one of said original print jobs into a plurality of sub-jobs with said print system component (Takeda, col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job. Also see col 4, ln 42-45,

for example, wherein jobs larger than a predetermined size are partitioned into a plurality of sub-jobs);

Tagging said plurality of sub-jobs with an output mode code wherein said output mode code is the same for sub-jobs originating from the same original print job (Takeda, col 5, ln 59-64, wherein each sub-job Px stored in each spool area are sent to switching stackers, i.e. output trays. Inherently, each sub-job must be tagged with an output mode code in order for sub-jobs to be collected on a per-user basis. Sub-jobs that are collated on a per-user basis are inherently tagged with the same output code originating from the same original user job);

Generating a combined print job (Wanda, col 8, ln 61- col 9, ln 10, wherein individual jobs are grouped into a group job at a non-printer computing device. See fig 16 for example of a group job comprising a plurality of individual jobs, col 14, ln 17-21), wherein said generating comprises (Modifying the method of Tanaka with the teachings of Wanda cause a combined job to be generated comprising the interleaved sub-job and original jobs, as combined above in claim 1) interleaving said sub-jobs and any remaining original print jobs with said print system component (Takeda, col 5, ln 11-52, printing operation prints all pages "Px" of sub-job "X," and then moves to next sub-job. When all sub-jobs have been processed, operation loops back to first print job's sub-jobs. See col 5, ln 53-58, for spooling and printing. Also see fig 3B, wherein processing of jobs is continued until print data no longer remains, S7 and S13).

Regarding claim 16, the combination of Takeda and Wanda teaches a system for interleaving print jobs before said print jobs arrive at a printer, said system comprising:

A receiver for receiving a plurality of original print jobs, before said original print jobs arrive at a printer (Takeda, col 4, ln 66-67, and col 5, ln 1-8, wherein the spool area in the hard drive receives a plurality of print jobs. Also see fig 2, wherein spool area receives print jobs. Jobs are received by a non-printer computing device. See col 10, ln 63-67, and col 11, ln 1-3, wherein interleaving functions according to Takeda may be performed in part or entirely by a computer, i.e. a non-printer computing device);

A partitioner for partitioning at least one of said original print jobs into a plurality of sub-jobs (Takeda, col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job. Also see col 4, ln 42-45, for example, wherein jobs larger than a predetermined size are partitioned into a plurality of smaller sub-jobs. Partitioning is performed by operations in spooler);

A tagger for tagging said plurality of sub-jobs with an output mode code wherein said output mode code is the same for all said sub-jobs originating from the same original print job (Takeda, col 5, ln 59-64, wherein each sub-job Px stored in each spool area are sent to switching stackers, i.e. output trays. Inherently, each sub-job must be tagged with an output mode code in order for sub-jobs to be collected on a per-user basis. Sub-jobs that are collated on a per-user basis are inherently tagged with the same output code originating from the same original user job. Tagging is performed by spooling unit); and

A combiner for forming a combined print job (Wanda, col 8, ln 61- col 9, ln 10, wherein individual jobs are grouped into a group job at a non-printer computing device. See fig 16 for example of a group job comprising a plurality of individual jobs, col 14, ln

17-21), wherein said combiner comprises (Modifying the method of Tanaka with the teachings of Wanda cause a combined job to be generated comprising the interleaved sub-job and original jobs, as combined above in claim 1) an interleaver for interleaving said smaller sub-jobs and any remaining original print jobs in an alternating sequence of print jobs (Takeda, H/D (Hard drive) #202 comprises spooler area which comprises methods for partitioning and interleaving print jobs. See col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job. The printing operation prints all pages "Px" of sub-job "X," and then moves to next sub-job. When all sub-jobs have been processed, operation loops back to first print job's sub-jobs. See col 5, ln 53-58, for spooling and printing. Also see fig 3B, wherein processing of jobs is continued until print data no longer remains, S7 and S13).

Regarding claim 17, claim 17 recites identical features as claim 1 except claim 17 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 1 are equally applicable to claim 1. See Takeda, col 2, ln 23-30, wherein printing operation is performed by program in RAM, while hard drive stores a plurality of applications to be run by CPU. Also see Takeda, col 10, ln 63-67, and col 11, ln 1-3, steps are performed by executing program codes read by a computer, separate from a printing device.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in Utsunomiya et al. (US 5,822,500).

Regarding claim 7, which depends from claim 5, the combination of Takeda and Wanda teach a method for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence, wherein the receiving, and interleaving are performed at a non-printer computing device and wherein the partitioning is performed by a software print system component in an operating system print server, as explained above in the rejection of claim 5. The combination of Takeda and Wanda does not disclose expressly a method for interleaving print jobs wherein said print system component is independent of an operating system print driver. Utsunomiya, however, teaches a method for interleaving print jobs wherein said print system component is independent of an operating system print driver (Utsunomiya, col 5, ln 58-67 and col 6, ln 1-11, partitioning of print jobs is performed by CPU, wherein CPU operates independently of an operating system print driver, i.e. without a driver).

Takeda, Wanda, and Utsunomiya are combinable because they are from a similar filed of endeavor of print processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Utsunomiya comprising a print system component that is independent of an operating system print driver with the combination of Takeda and Wanda comprising a method for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence, wherein the receiving, and interleaving are performed at a non-printer computing device and wherein the partitioning is performed by a software print

system component in an operating system print server. The suggestion for doing so would have been to provide a printer apparatus and method of controlling the same, in which a later printing job can be executed before an earlier print job is finished, thereby making it possible to improve the efficiency of the overall printing system (Takeda, col 1, ln 32-36), as well as providing centralized control in the form of a server to combine an image processing apparatus which can connected to a plurality of data generating sources (Utsunomiya, col 1, ln 41-43). Therefore, it would have been obvious to combine Utsunomiya with the aforementioned combination of Takeda and Wanda to obtain the invention as specified in claim 7.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in view of Keeney et al. (US 6,748,471).

Regarding claim 8, which depends from claim 5, the combination of Takeda and Wanda teach a method for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence, wherein the receiving, and interleaving are performed at a non-printer computing device and wherein the partitioning is performed by a software print system component in an operating system print server, as explained above in the rejection of claim 5. The combination of Takeda and Wanda does not disclose expressly a method for interleaving print jobs wherein said print system component is a network print spooler that is independent of a printer.

Keeney, however, teaches a method wherein said print system component is a network print spooler that is independent of a printer (Keeney, col 6, ln 42-44, jobs are received by spooling server, also see fig 9, wherein a plurality of jobs are in print job storage #52. After jobs are received by spooling server of Keeney, partitioning by a software print system component in an operating system print server continues as taught by Takeda and Wanda).

Takeda, Wanda, and Kenney are combinable because they are from a similar field of endeavor of print processing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Keeney comprising using a network print spooler that is independent of a printer with the combination of Takeda and Wanda comprising a method for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence, wherein the receiving, and interleaving are performed at a non-printer computing device and wherein the partitioning is performed by a software print system component in an operating system print server. The motivation for doing so would have been to provide a repository that is accessible, e.g., via a global communication network such as the Internet, to authorized users at any time of day (Keeney, col 6, ln 27-30). Therefore, it would have been obvious to combine Keeney with the aforementioned combination of Takeda and Wanda to obtain the invention as specified in claim 8.

Claim 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 6,229,622) in view of Wanda (US 6474881) and further in view of Rabjohns et al. (US 5,697,040).

Regarding claim 12, which depends from claim 1, the combination of Takeda and Wanda teaches a method for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence. The combination of Takeda and Wanda does not disclose expressly a method wherein said interleaving places sub-jobs originating from smaller original print jobs toward the front of the print order. Rabjohns, however, teaches a method for interleaving print jobs wherein said interleaving places sub-jobs originating from smaller original print jobs toward the front of the print order (Rabjohns, col 6, ln 12-18, smaller jobs are interleaved into larger jobs, moving the smaller jobs towards the front of the print order).

Takeda, Wanda and Rabjohns are combinable because they are from the same field of endeavor of print interleaving. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of inserting smaller print jobs towards the front of the print order of Rabjohns with the method of Takeda for interleaving print jobs comprising receiving print jobs, partitioning said jobs into sub-jobs, tagging said sub-jobs, generating a combined print job, and interleaving said sub-jobs in a sequence. The suggestion for doing so would have been to provide a printer apparatus and method of controlling the same, in which a later printing job can be executed before an earlier print job is finished, thereby making it possible to improve the

efficiency of the overall printing system (Takeda, col 1, ln 32-36), and to blend images of a second job with the images of a first job during the first job processing (Rabjohns, col 2, ln 8-11), especially when said second job is smaller in length than said first job. Additionally, the suggestion for combining multiple components was given by Takeda in col 10, ln 42-45, wherein the method of interleaving of Takeda may be applied to a system constituted by a plurality of devices (e.g., a host computer, interface, reader, printer, etc.). Therefore, it would have been obvious to combine Rabjohns with the combination of Takeda and Wanda to obtain the invention as specified in claim 12.

Regarding claim 14, the combination of Takeda, Wanda and Rabjohns further teaches a method for reducing delay of smaller print jobs in a print queue, said method comprising:

Receiving a plurality of original print jobs at a print system component before said original print jobs arrive at a printer (Takeda, col 3, ln 17-20, printer apparatus receives jobs from network via LAN, also col 5, ln 11-15, print jobs stored in memory, with each job corresponding to an indices "X," indicating a plurality of jobs. As is taught by Takeda, part of or all of interleaving functions may be performed by a separate computer, i.e. before a printer, or in discrete network components, wherein the printer is the last step), said plurality of original print jobs comprising at least one larger print job and at least one smaller print job (Rabjohns, col 6, ln 12-18, smaller jobs are interleaved into larger jobs, moving the smaller jobs towards the front of the print order);

Partitioning said larger original print job into a plurality of sub-jobs (Takeda, col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job);

Tagging said smaller sub-jobs with an output mode code (Takeda, col 5, ln 59-64, wherein each sub-job Px stored in each spool area are sent to switching stackers, i.e. output trays. Inherently, each sub-job must be tagged with an output mode code in order for sub-jobs to be collected on a per-user basis. Sub-jobs that are collated on a per-user basis are inherently tagged with the same output code originating from the same original user job);

Forming a combined print job (Wanda, col 8, ln 61- col 9, ln 10, wherein individual jobs are grouped into a group job at a non-printer computing device. See fig 16 for example of a group job comprising a plurality of individual jobs, col 14, ln 17-21), wherein said forming (Modifying the method of Tanaka with the teachings of Wanda cause a combined job to be generated comprising the interleaved sub-job and original jobs) comprises interleaving said sub-jobs with said smaller original print job (Takeda, col 5, ln 11-52, printing operation sends all pages "Px" of sub-job "X" to a printer, and then moves to next sub-job. When all sub-jobs have been processed, operation loops back to first print job's sub-jobs, thereby printing in order).

Regarding claim 15, which depends from claim 14, the combination of Takeda, Wanda and Rabjohns further teaches a method further comprising partitioning said smaller original print job into sub-jobs and wherein said interleaving comprises interleaving said sub-jobs from said larger print job with said smaller sub-jobs from said

smaller print job (Takeda, col 5, ln 11-52, print jobs are partitioned into sub-jobs of size Px, where Px is the number of pages per sub-job. Also see Rabjohns, col 7, ln 7-19, both small and large jobs are partitioned into smaller sub-jobs and interleaved to improve printer efficiency).

(10) Response to Argument

Appellant, on page 5, lines 11-12, argues that Takeda and Wanda are not properly combinable or modifiable because the intended function of Takeda is destroyed in combination or modification with Wanda. In a scenario Appellant proposes on page 5, lines 12-18, if the sub-jobs of Takeda are combined into a combined uninterruptible print job as in Wanda, then an intervening smaller print job received at the printer spooler of Takeda will not be printed until the completion of the combined print job, thereby destroying the intended function of Takeda.

Additionally, on page 5, lines 19-20, Appellant argues Takeda and Wanda are not properly combinable or modifiable because the intended function of Wanda is destroyed in combination or modification with Takeda. On page 5, lines 20-25, Appellant states if a group job according to Wanda is sent to the printer of Takeda, the group job will be spooled into smaller sub-jobs, thereby interrupting the printing of the group job.

In response to both arguments: the Examiner respectfully disagrees with Appellant's argument for three reasons.

Firstly, the Examiner respectfully submits the Appellant is misinterpreting the Examiner's rejection of claim 1, for example, to be much more narrow in the applications of the teachings of Takeda and Wanda. Takeda is cited for teaching receiving a plurality of print jobs, partitioning print jobs into sub-jobs, Tagging the sub-jobs with an output mode code, and interleaving the sub-jobs. Wanda is cited simply for teaching the method of generating a combined print job comprising a plurality of user jobs. Applying the well-known concept of grouping print jobs, which reads on generating a combined print job, to the teaching of interleaving sub-jobs with the original job properly meets the limitations of the claim.

Secondly, the broad application of organizing print jobs does not destroy the references of Takeda or Wanda. Even in Takeda, the uninterruptible operating capability is suggested. In one situation, printing in Takeda is performed uninterrupted for each spool area (fig 3b). The area of a spool area may be set according to the amount of data, i.e. number of pages (column 4, lines 40-41), which suggests the uninterruptible combined print job of Wanda may fit in a spool area of Takeda without either reference being destroyed. Furthermore, Wanda suggests the interruption of the group job in column 14, lines 25-67 and column 14, lines 1-57, corresponding to fig 11. In this figure and the above citation, the group job of Wanda may be interrupted by an interrupt job (column 15, ln 46-57) and thus would not be destroyed by Takeda which allows for sub-job interleaving.

Thirdly, Takeda and Wanda share a similar goal although they are implemented in a different manner. Each reference is concerned with ensuring the user's job is

quickly printed and presented to the user: Takeda provides for interleaving jobs and Wanda provides for grouping jobs into a combined job. This common goal further supports the Examiner's reasoning that neither Takeda is destroyed in combination or modification with Wanda, nor is Wanda destroyed in combination or modification with Takeda.

On page 6, lines 9-11, Appellant argues there is no teaching to combine a method for effectively interrupting a print job (Takeda) with a method for not allowing interruption of a print job (Wanda).

In response: the Examiner respectfully disagrees. As explained above, Takeda teaches a spool area is an uninterruptible print area, while Wanda provides means to interrupt a group job. Thus, Appellants attempt to distill the teachings of Takeda and Wanda into non-combinable descriptions is incorrect, and Takeda and Wanda are combinable under the teaching, motivating and suggesting guidelines of 35 U.S.C. 103.

On page 6, lines 18-29 and continuing on page 7, lines 1-11, Appellant argues the common element of "generating a combined print job, wherein said generating comprises interleaving said sub-jobs and any remaining original print data with said non-printer computing device," found in independent claims 1, 13, 16 and 17, is not found in the combination of the prior art.

In response: the Examiner has shown how the references of Takeda and Wanda are combinable and neither reference destroys the other in the combination. As discussed in the Final Office action mailed November 17, 2006, the combination of Takeda and Wanda teaches the above limitation. First, Takeda teaches interleaving

said sub-jobs and any remaining original print jobs with said non-printer computing device. Takeda, at column 5, lines 11-52, teaches interleaving sub-jobs with original print jobs. At column 10, lines 63-67 and column 11, lines 1-3, Takeda teaches interleaving functions may be performed in part or entirely by a computer. Takeda does not disclose expressly generating a combined job. However, Wanda teaches a method of printing comprising generating a combined print job comprising a plurality of print jobs. Wanda, at column 8, lines 61-67 and column 9, lines 1-10, teaches grouping individual jobs into a group job at a non-printer computing device. Modifying the method of Tanaka with the teachings of Wanda causes a combined job to be generated comprising the interleaved sub-jobs and the original jobs.

On page 7, lines 12-25 and on page 8, lines 1-8, Appellant argues the combination of Takeda in view of Wanda and further in view of Utsunomiya in claim 7 does not overcome the deficiencies of the rejection of claim 1.

In response: The Examiner respectfully submits the limitations of claim 1, which claim 7 depends from, are properly rejected by the combination of Takeda and Wanda. Therefore, claim 7 is not allowable for at least depending on a rejected base claim.

On page 8, lines 9-25 and on page 9, lines 1-5, Appellant argues the combination of Takeda in view of Wanda and further in view of Keeney in claim 8 does not overcome the deficiencies of the rejection of claim 1. Claim 8 depends from claim 5, which depends from independent claim 1.

In response: The Examiner respectfully submits the limitations of claim 1, which claims 5 and 8 depends from, are properly rejected by the combination of Takeda and

Wanda. Therefore, claim 8 is not allowable for at least depending on a rejected base claim.

On page 9, lines 6-26 and on page 10, lines 1-22, Appellant argues the combination of Takeda in view of Wanda and further in view of Rabjohns in claims 12, 14 and 15 does not overcome the deficiencies of the rejection of claim 1.

In response: The Examiner respectfully submits the limitations of claim 1, which claims 12 depends from, are properly rejected by the combination of Takeda and Wanda. Therefore, claim 12 is not allowable for at least depending on a rejected base claim.

Claim 14 is an independent claim comprising similar limitations as those claimed in claim 1. Thus, arguments presented above for the rejection of claim 1 are equally applicable to the rejection of claim 14. Claim 15 depends from claim 14. Thus, claim 15 is not allowable for at least depending on a rejected base claim.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Dillon J. Murphy
Patent Examiner
Art Unit 2625

August 2, 2007

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